



Phantom™ ST II

SHAPE CUTTING CONTROLLER

The advanced Phantom ST II CNC shape cutting controller is designed for use with multiple axis cutting machines. It features an operator console that contains full plasma functionality – up to 2 oxyfuel stations and 2 plasma stations. The Burny 8 software which runs on a Windows® 8 Embedded Operating System (OS), provides improved flexibility and ease of use for the operator. The end result is excellent cut quality and high productivity.

The Phantom ST II controller features –

- Operator console that contains full plasma functionality, up to 2 oxyfuel stations and 2 plasma stations.
- Choose between integrated AC drives or external drive interface configurations.
- New PC platform with advanced multi-core processor technology combined with standard 3 axis drives. Faster processing capability enables advanced CNC features and improves the user experience.
- Touchscreen display with new intuitive user interface that is easy to learn and improves operator productivity.

Utilizing the proprietary motion engine, the Phantom ST II motion control software produces extremely precise and repeatable cut parts. The system contains many software features not found in comparable numerical controls, such as true multitasking and .dxf file conversion.

Adaptable to any cutting machine and virtually all plasma systems, the Phantom ST II is a rugged, reliable and easy to use shape cutting controller that fits your application requirements on new machines or as an upgrade on your old cutting machine.

HARDWARE PLATFORM:

- **Interface:** 15 in. industrial TFT USB Touchscreen
- **Processor:** 2.26Ghz Intel® Core™ 2 Duo Mobile
- **Memory:** 2GB DDR3 RAM
- **Storage Space:** 40GB or Larger (SATA) industrial grade solid-state hard drive for robust performance
- **Operating System:** Windows® 8 OS (Embedded)
- **Connectivity Options:** USB, Network Ready (optional)
- **Physical Controls:** 8 Direction Keypad, Start, Stop, Go To, Reverse, and Feed Rate Potentiometer
- **Operators Console Functions for:**
 - 2 Plasma
 - 2 Oxyfuel Gas (manifold gases, preheat and oxygen functions only)
- **Drive System and Accessories**
 - 3 axis 400 watt AC drives
 - External drive interface version available
 - High accuracy gearboxes (optional)
 - Drive system cables (optional)
- **Operating Environment:** 32 to 122°F (0 to 50°C) 95% humidity (non-condensing)
- **Partial List of Operating Languages:** Swedish, French, Russian, Spanish, Chinese, Italian, Norwegian, German
- **Warranty:** 1 year on controller
- **CE Compliant**



EASE OF USE



Improved User Experience

New intuitive graphical user interface features optimized screen to screen navigation, drop down menus, easy access panel for torch height control, Shapes Setup and Job Set up menus.

Fast DXF File Conversion

Phantom ST II accepts direct downloads of CAD/CAM .dxf files, which reduces the expense of third-party post processing

software. Furthermore, the Phantom ST II can automatically assign Lead In/Lead Out positions – or the operator can make these assignments manually.

Go To (Job Interrupt)

Interrupt the current cutting routine to cut a new part, move ahead multiple pierce points, recover from cut loss, recover from power loss, change torch consumables, interrupt a long nest, jump to the end of a part or nest or reverse the cutting path – all quickly done at the touch of a button without losing machine position and without scrapping valuable material.

Quick Plate Alignment

Quickly compensate for a plate that is not aligned properly on the machine. The Phantom ST II controller rotates the part program for the proper placement on the true plate position. With a few simple screen prompts, the system rotates the part program for the proper alignment with the plate. Virtually drop the plate and cut. This saves material and wasted time moving the plate into the correct cutting position.

Plasma Process Wizard for Advanced Plasma Process Control

Using the wizard to manage on/off controls of the plasma system saves the operator initial repetitive set up time. Factory loaded cut charts or custom cut charts give you the ability to cut like an expert by simplifying the job setup to only a few steps of choosing your material type and material thickness on the CNC. Once selected, send your cut chart data to the plasma system and begin cutting in minutes. Using the process wizard, easily change the torch height control settings to optimize the cut quality.



Main Screen



Torch Height Control (THC) Panel



Utilities Menu



Job Set-Up



Integrated Spirit Console



Monitor Consumables



Shapes Library



On-Board Operator Manual

OPERATOR PRODUCTIVITY

- **Integrated Spirit® II Module** Burny 8 includes an integrated Spirit II plasma console, which bypasses the need for multiple screens and enables the operator to control the plasma cutting process via a single controller and a single user interface.
- **True Multitasking Environment** Increases operator productivity by performing many different tasks within the Windows 8 OS (Embedded) environment. Load a new part program, create or edit a part program, choose a new part program from the shape library, create or edit a program nest, check production messages, fill out productivity sheets or monitor consumables life – all at the same time and all while the machine is cutting.
- **Expandable Shape Library** Commonly used standard shapes can be designed right at the control. Touch the screen to input the required dimensions and follow a simple logical prompting process. Shapes are graphically displayed with dimension lines to assist the numeric entry process. A dynamic display draws the shape, which reduces guesswork. Now even complex shapes can be made consistently and accurately.
- **Consumable Statistics Screen** Monitor and track consumable usage in order to maximize consumable life and torch life. The system will notify the operator when a consumable change is required. In addition, cut quality and part accuracy can be held to the highest levels.
- **UltraNest™ (optional)** Take advantage of our newly designed “on-board” true shape embedded nesting program to further reduce individual part cost and improve plate utilization. This nesting module offers the machine operator a Wizard-based interface along with an integrated CAD editor that makes nesting on the controller easier and more efficient than competitive controllers.
- **Remnant UltraNest Module (optional)** Reduce remnant inventory by giving your operator the ability to trace remnants via the CNC and nest parts into partially used plates.
- **Programmable Laser Offset for Fast Part Alignment**
- **Easy to Configure Mappable I/O**
- **On-Screen context based operator manual**
- **Multi-language support**

RELIABLE

- Designed and built for harsh industrial environments
- Quick System Recovery
- Internal air cooling with complete cabinet seal to protect electronics from metal dust
- Job Interrupt and Power Loss Cut Recovery
- Solid State Hard Drive

PRODUCT SPECIFICATIONS

Product Name	Product Number	Input Power	Operating Environment	H x W x D inches (mm)	Net Wt. lbs. (kg)
Phantom ST II with AC Drives	BK1250-100114	115-230 Auto Switching at 50/60 Hz	32 to 122°F (0 to 50°C) 95% humidity (non-condensing)	22.2 x 17.6 x 15 (563.8 x 447 x 381)	54 (24.5)
Phantom ST II with External Drive Interface	BK1250-100117			22.2 x 15.8 x 15 (563.8 x 401.3 x 381)	38 (17.2)

EASY TO INSTALL AND SERVICE

- Remote Diagnostics – Our service engineers can train operators, set up or configure the system or even help troubleshoot the system using online remote diagnostics tool.
- Built in oscilloscope function to fine tune the motion control.
- Easy and complete access to internal components.

ULTRASHARP™ HOLE TECHNOLOGY

The Phantom ST II control platform comes ready to optimize hole cutting with minimal operator intervention when using our latest UltraSharp cutting technology. We achieve this capability by offering a completely integrated platform consisting of our CNC/Height Control/Software & Plasma System that offers a reliable and single sourced cutting solution.

Our 40 years of shape cutting experience helps us produce the industry's most consistent hole quality for mild steel and stainless steel at various thicknesses.

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